BIOGRAPHICAL SKETCH

NAME	TITLE	BIRTHDATE (Mo., Day, Yr.)
George J. Doellgast	Research Fellow	R

PLACE OF BIRTH (City, State, Country)	PRESENT NATIONALITY (If non-U.S. citizen, indicate kind of visa and expiration date)	SEX
R	R	☒ Male ☐ Female

EDUCATION (Begin with baccalaureate training and include postdoctoral)

INSTITUTION AND LOCATION	DEGREE	YEAR CONFERRED	SCIENTIFIC FIELD
Fordham College, Bronx, New York	B.S.	1966	Chemistry
Columbia School of Engineering and Applied Sciences	B.S.	1967	Applied Biology
Purdue University, W. Lafayette, Indiana	Ph.D.	1972	Biochemistry

HONORS

MAJOR RESEARCH INTEREST	ROLE IN PROPOSED PROJECT
Enzymology	Collaborator

RESEARCH SUPPORT (See instructions)

None

RESEARCH AND/OR PROFESSIONAL EXPERIENCE (Starting with present position, list training and experience relevant to area of project. List all or most representative publications. Do not exceed 3 pages for each individual.)

Research and Professional Experience:

Ph.D. Thesis Research, 1967-72 — Purdue University, Lafayette, Indiana
Research Assistant, 1964-66 — Columbia College of Physicians and Surgeons and Roosevelt Hospital

Professional Training:

Summers 1964-66, working for Dr. William G. Kelly in the laboratory of Dr. Nicholas P. Christy at Columbia College of Physicians and Surgeons and Roosevelt Hospital, on TLC and liquid-liquid chromatography fractionation of steroids, from synthetic mixtures and biological materials.

Ph.D. research program in the Biochemistry Department of Purdue University; first 1 1/2 years, study of the developing endosperms of normal and high lysine maize in the laboratory of Edwin T. Mertz. Studied changes in dehydrogenase levels, the soluble amino acid pool, and alcohol soluble protein fractions. Remainder of time at Purdue, study of the enzyme α-Isopropylmalate Synthase from Salmonella Typhimurium. Some work on peptide analysis and C^{14}-iodoacetate labeling of sulfhydryl groups, but predominantly worked on improving the purification of the enzyme, using affinity chromatography, purifying a feedback-resistant enzyme by the same procedure, and studying the leucine

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binding site using a number of methods, including affinity chromatography, competition of leucine analogues for the leucine binding site in kinetic assays, and binding of dansyl amino acids as specific fluorescent probes of the leucine binding site.

Techniques Known:

Protein fractionation: ammonium sulfate and polyethylene glycol precipitation; ion exchange, Sephadex, and affinity chromatography; preparative disc gel electrophoresis.
Spectroscopic techniques: ultraviolet, visible and fluorescence spectroscopy.
Counting techniques: liquid scintillation.
Other fractionation techniques: amino acid analysis (Beckmann), liquid-liquid partition chromatography, TLC and adsorption chromatography.
Protein structure: amino terminal analysis (dansylation), tryptic and cyanogen bromide peptide cleavage.

Publications:

Janoski, A.H., Doellgast, G.J. and Kelly, W.G., On the metabolism of 16-α-hydroxy-C-21 steroids. I. Microbial synthesis of radioisotopically labeled 16-α-hydroxylated steroids in high specific activity. Steroids 13, 179, 1969.

Doellgast, G.J. and Kohlhaw, G.B., Affinity chromatography of α-isopropylmalate synthase; evidence for conformational changes. Fed. Proc. 31, 424, 1972. (Abstract)

Doellgast, G.J. and Kohlhaw, G.B., The leucine binding site of α-isopropylmalate synthase from Salmonella Typhimurium. I. Affinity chromatography and reversal of inhibition by analogues. (Manuscript in preparation)

Doellgast, G.J. and Kohlhaw, G.B., The leucine binding site of α-isopropylmalate synthase from Salmonella Typhimurium. II. Dansyl amino acids as specific binding site probes. (Manuscript in preparation)